

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of the claims in the application.

In the Claims

1. – 31. (Cancelled)

32. (Currently Amended) A medical device for use in a body lumen, the device comprising:

a first catheter shaft having a proximal end region, a distal end region, and a guidewire lumen;

a guidewire slidably disposed in the guidewire lumen;

a filter coupled to the guidewire;

a balloon coupled to the distal end region of the first catheter shaft; and

a stent disposed adjacent the first catheter-shaft and positioned distally of the balloon,

wherein the balloon and the first catheter shaft are configured to stop fluid from outside the first catheter shaft proximal to the balloon from flowing distally past the distal region of the shaft when the balloon is expanded.

33. (Previously Presented) The medical device of claim 32, wherein the stent is self-expanding.

34. (Previously Presented) The medical device of claim 32, further comprising a second catheter shaft slidably disposed within the first catheter shaft.

35. (Previously Presented) The medical device of claim 34, wherein the guidewire is slidably disposed within a second guidewire lumen defined in the second catheter shaft.

36. (Previously Presented) The medical device of claim 34, wherein the stent is disposed on the second catheter shaft.

37. (Previously Presented) The medical device of claim 36, wherein the stent is configured to shift between a first generally collapsed configuration and a second generally expanded configuration, and wherein the stent is biased to be in the second configuration.

38. (Previously Presented) The medical device of claim 37, wherein the stent is retained in the first configuration on the second catheter shaft by a retaining sleeve.

39. (Previously Presented) The medical device of claim 37, wherein the stent is retained in the first configuration on the second catheter shaft by the first catheter shaft.

40. (Previously Presented) The medical device of claim 32, wherein the first catheter shaft defines a perfusion lumen configured for perfusing fluid therethrough so as to flush embolic debris into the filter.

41. (Currently Amended) A medical device for use in a body lumen, the device comprising:

an outer catheter shaft;

an inner catheter shaft slidably disposed in the outer catheter shaft;

an elongate guidewire slidably disposed in the inner catheter shaft;

a filter coupled to the guidewire;

a balloon coupled to the outer catheter shaft; and

a stent coupled to the inner catheter shaft,

wherein the balloon and the outer catheter shaft are configured to stop fluid from outside the outer catheter shaft proximal to the balloon blood from flowing distally past the balloon when the balloon is expanded.

42. (Previously Presented) The medical device of claim 41, wherein the stent is self-expanding.

43. (Previously Presented) The medical device of claim 41, wherein the stent is configured to shift between a first generally collapsed configuration and a second generally expanded configuration, and wherein the stent is biased to be in the second configuration.

44. (Currently Amended) The medical device of claim 43, wherein the stent is retained in the first configuration on the inner ~~second~~ catheter shaft by a retaining sleeve.

45. (Previously Presented) The medical device of claim 43, wherein the stent is retained in the first configuration on the inner catheter shaft by the outer catheter shaft.

46. (Previously Presented) The medical device of claim 41, wherein at least one of the inner or outer catheter shafts define a perfusion lumen therein that is configured for perfusing fluid therethrough so as to flush embolic debris into the filter.

47. (Withdrawn) A method for flushing embolic debris into a filter, comprising the steps of:

providing a catheter system, the system including an outer catheter shaft, an inner catheter shaft slidably disposed in the outer catheter shaft, a distal flushing port, a balloon coupled to the outer catheter shaft, and a stent coupled to the inner catheter shaft;

providing a guidewire having an expandable filter coupled thereto;

inserting the guidewire into a blood vessel;

advancing the guidewire to a position where the expandable filter is disposed distally beyond a region of interest;

expanding the filter;

advancing the catheter system over the guidewire to a position where the balloon is disposed proximally of the region of interest;

expanding the balloon;

flushing the embolic debris towards the expandable filter through the flushing port of the catheter system, whereby the filter collects the embolic debris; and

removing the filter containing the collected embolic debris material from the blood vessel.

48. (Withdrawn) The method of claim 47, wherein the distal flushing port of the catheter system is defined by a distal end of the outer catheter shaft, and wherein the step of flushing the embolic debris towards the expandable filter through the flushing port of the catheter system includes flushing the embolic debris towards the expandable filter through the distal end of the outer catheter shaft.

49. (Withdrawn) The method of claim 47, further comprising the step of deploying the stent.

50. (Withdrawn) The method of claim 48, wherein the stent is held in an undeployed configuration by a sleeve disposed on at least a portion of the stent, and wherein the step of deploying the stent includes removing the sleeve from the stent.

51. (Withdrawn) A method for flushing embolic debris into a filter, comprising the steps of:

providing a catheter system, the system including an outer catheter shaft, an inner catheter shaft slidably disposed in the outer catheter shaft, a port defined by a distal opening of the outer catheter shaft, a balloon coupled to the outer catheter shaft, and a stent coupled to the inner catheter;

providing a guidewire having an expandable filter coupled thereto;

advancing the guidewire through a blood vessel to a region of interest;

expanding the filter;

advancing the catheter system over the guidewire to a position proximal of the filter and the region of interest;

deploying the stent;

expanding the balloon;

flushing the embolic debris towards the expandable filter through the port, whereby the filter collects the embolic debris; and

removing the filter containing the collected embolic debris material from the blood vessel.

52. (Withdrawn) The method of claim 51, wherein the stent is held in an undeployed configuration by a sleeve disposed on at least a portion of the stent, and wherein the step of deploying the stent includes removing the sleeve from the stent.